



Opening of the National Museum of the American Indian

On September 21, 2004, indigenous people from around the western hemisphere celebrated the opening of the National Museum of the American Indian (NMAI) in Washington, DC. Dressed in their traditional tribal outfits, representatives from many Tribal Nations from across the

U.S., as well as Peru, Brazil and New Zealand participated in the procession down the National Mall prior to the grand opening of the museum to the public. It also was the start to the First Americans Festival—a week long celebration of music, dance, and storytelling featuring some of the most talented Native artists and performers. The museum represents a milestone for Native Americans—a recognition and tribute long in the making.



As seen in the photo on page 2, EPA's American Environmental Indian Office, the central office for American Indian activities in the Agency, organized and led the group of EPA represen-

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A Letter from the Director, Office of Science Policy

Life in OSP is an interplay between the familiar and the new. Our core function of facilitating the relationship between ORD and its clients is long-standing and ongoing; however, we carry out that role in an environment continuously infused with new issues and enriched by new people.

First, the people. This summer Brian Gullet joined us from NRMRL/RTP to serve as Acting Chief of the Program Support Staff. We enjoyed Brian's winning personality and good humor, and benefited from his insights and perspectives on the work we do in Headquarters. Sharon Ogunfiditimi left OSP to pursue a career opportunity at NIH, and we will miss her, but we are delighted that Diane Ham has joined us to provide front office support. We also give a hearty welcome to Susan Glassmeyer and Chau Vu, from NERL and Region 1, respectively, who are on detail to OSP to work on program support issues. Valerie Chan has joined us via the EPA Intern Program, and we welcome her into the OSP family. We bid a fond farewell to Pasky Pascual and Elsie Sunderland, who are taking the CREM function to NERL (but happily will remain located right here with us on the 5th floor). See more staffing changes in the "Staff Corner" section of this *OSP Update*.

New issues continue to land on OSP's doorstep. We have taken on support for the

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New CRADA with Affymetrix Highlighted

EPA recently joined in a Cooperative Research and Development Agreement (CRADA) with Affymetrix, Inc., to develop faster, cheaper, and more accurate rodent *in vivo* and human *in vitro* testing protocols used in identifying chemical hazards to human health. ORD's National Health and Environmental Effects Research Laboratory (NHEERL) will assess the feasibility of using Affymetrix GeneChip technology for

predicting chemical toxicity in humans. This project supports and enhances a number of ongoing efforts in EPA's computational toxicology research program and, if successful, will allow EPA and other institutions to use this technology in lieu of toxicological testing and screening on animals.

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Nanotechnology Progress Review Workshop

Up-to-the-minute research findings on the implications and applications of nanotechnology were presented at National Center for Environmental Research's (NCER) second Nanotechnology STAR Progress Review Workshop held August 18-20, 2004, in historic Philadelphia, PA. This workshop provided an opportunity for 44 grantees from across the United States to interact with each other and staff from EPA's program offices. They learned about the latest developments in the field and attended sessions on green manufacturing, aerosols, sensor technologies, remediation, life cycle analysis, treatment applications (chaired by Anita Street), technologies, and fate, transport, and transformation. Among the many interesting topics were the applications for environmental sensors or "lab-on-a-chip" devices, which if fully realized, could be of tremendous benefit in terms of

providing a greater ability to conduct real-time analyses *in situ* and create networks of widely distributed sensors to continuously monitor environmental change.

Dr. Mihail Roco, of the National Science Foundation and co-chair of the White House Subcommittee on Nanoscience, Engineering and Technology (NSET) and an outspoken proponent of responsible research and development of nanotechnology, opened the meeting with an overview of the National Nanotechnology Initiative (www.nano.gov). He emphasized the importance of involving and properly educating the public to avoid the pitfalls that virtually derailed the widespread acceptance of genetically modified foods.

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CRADA

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Under the Federal Technology Transfer Act (FTTA), a CRADA is a flexible collaboration that allows private industry and state/local governments access to federal laboratories to exchange EPA personnel, equipment, or services for a particular project with the goal being to more efficiently move technology into real-world applications. Affymetrix, Inc., will provide the appropriate GeneChip arrays and reagents for the project, while NHEERL will conduct the experiments. Both parties will collaborate on the analysis of the test results.

For more information on this CRADA, please contact Laurel Schultz at 202-564-3917 or schultz.laurel@epa.gov or Kathleen Graham at 202-564-2678 or graham.kathleen@epa.gov.

National Museum

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tatives carrying their banner along the procession route as spectators applauded. EPA was the first federal agency to develop an Indian Policy (even before the Bureau of Indian Affairs) and all EPA Administrators, including the current Administrator Michael Leavitt, have reaffirmed the policy. American Indians have a profound relationship to the earth and it is reflected throughout the museum. Interestingly, some of the work of EPA with tribes is depicted in the exhibits. EPA also provided, as part of the grand opening, a poster of the cover page with authors' signatures of the *EPA Tribal News*, the first issue of the magazine containing articles from individuals across the Agency who are working with their tribal partners to address environmental issues. ORD submitted several articles featured in the science section of the magazine. The *EPA Tribal News* can be seen at <http://www.epa.gov/opptin-tr/tribal/pubs.html>.

The museum contains an incredible collection of objects from all over North, Central, and South America. The Smithsonian worked with several Tribal Nations to develop the museum. The Smithsonian Institution's eighteenth museum celebrates the lifeways, languages, literature, history, and art of Native Americans through its exhibitions, programs, films, publications, and demonstrations. In addition, the Mitsitam Café, which means "let's eat" in the Piscataway and Delaware language, serves meals and snacks based on the indigenous foods and culinary traditions of the Americas. In contrast to the other museums on the Mall, visitors will be struck by the exterior of the building that was designed to reflect rock formations, lakes, rivers, forests,

canyons, and mountains—a native place. The surrounding grounds also recall the natural environment of the Chesapeake Bay region featuring forest, meadow, wetland, and traditional cropland areas. For more information on the NMAI, visit the NMAI Web site at <http://www.nmai.si.edu>.





Emerging Molecular and Computational Approaches for Cross-Species Extrapolations Workshop

Anita Street attended the July 19-22, 2004 Society of Environmental Toxicology and Chemistry-Society of Toxicology (SETAC-SOT) workshop in Forest Grove, OR. The purpose of the workshop was to examine the barriers to applying molecular and computational approaches to extrapolation of chemical sensitivities between surrogate organisms by evaluating the current “-omics” technologies in molecular biology (genomics, transcriptomics, proteomics, and metabonomics) and computational biology (statistics, modeling, and bioinformatics). The workshop, which was coordinated by Bill Benson of EPA's Gulf Breeze Laboratory and Rich Di Guillio of Duke University, followed the standard SETAC Pellston formula of bringing together 30 experts from diverse backgrounds including environmental toxicology and

chemistry, biomedical toxicology, molecular biology, genetics, bioinformatics, computer science, and statistics.

Five different working groups, composed of participants nominated from academia, government, and the private sector examined technical topics that included:

- “-Omic” approaches in the context of human and environmental toxicology;
- Selection of surrogate species: phylogenetic and physiological;
- Shared pathways of toxicity: mechanistic linkages;

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Forum on Environmental Measurements, an important Agency initiative. The Research Coordination Staff is breaking new ground with their cross-MYP analyses work that will prove valuable to ORD and its stakeholders. The Program Support Staff is moving into new territory by exploring better ways for ORD to support the development of regulatory impact analyses; the Media Managers will be front and center in this effort. As always, the Cross Program Staff has a number of new activities in the works. Just to name two, the Regional Science Team facilitated a products expo in Chicago—the first of several to be held in the regions, and in the FTTA program, we are providing leadership for ORD's new user facilities emphasis. Administration and Communication Programs (the A-Team!) continues not only to keep OSP humming like a well-oiled machine, but also is engaged in a proactive effort to streamline administrative functions.

So, while our mission as ORD's liaison between the labs/centers and the programs/regions is unchanged and we continue to carry out that mission reliably and effectively, we do so in a stimulating, dynamic, and energetic environment—facing challenging new issues and engaging new people in our collective endeavor to enhance the ORD research enterprise and strengthen the use of science for environmental protection.

On a final note, it has been my pleasure to serve as Acting Director for the past 3 months. Your competence, integrity, understanding, and fun-loving nature—as a group and as individuals—have helped make my office director detail a rewarding and enjoyable experience.

ORD/OPPTS Seminar Series

June 16, 2004—Novel Statistical Models of Dose-Additivity for Behavioral and Neurochemical Organophosphorus Pesticides

Presenter: Dr. Ginger Moser, National Health and Environmental Effects Research Laboratory (NHEERL), Neurotoxicology Division, ORD

Because pesticide application patterns generally result in exposure to mixtures instead of single chemicals, the detection and characterization of their interactions is particularly important in the estimation of their risks. This research tested for interaction(s) in a mixture of five organophosphorus (OP) pesticides (chlorpyrifos, diazinon, dimethoate, acephate, and malathion), with the ratio of pesticides in the mixture reflecting the relative dietary exposure estimates projected by the U.S. EPA Dietary Exposure Evaluation Model (DEEM). Neurochemical (blood and brain cholinesterase [ChE] activity) and behavioral (motor activity [MA], gait score, tail-pinch response score) endpoints were assessed in adult male Long-Evans rats following acute oral exposure with dose-response curves for each OP alone being characterized to build an additivity model. The additivity model was used to predict the effects of the pesticide mixture along a ray of increasing total doses (full ray, 10-450 mg/kg), using the same fixed ratio of components. The mixture data were similarly modeled and statistically compared to the additivity model along the ray. To evaluate the influence of malathion, a second pesticide mixture was tested using the same proportions of OPs but without malathion.

For more information, please view the slide presentation that is available at <http://intranet.ord.epa.gov:9876/development/RCT/PestToxRCT.nsf/1d97341def1e57d185256a5c006ee712/4a978467b5a6e32d85256eaf005f1441?OpenDocument>.

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Regional Science Liaison Training Workshop Report

During the week of September 19, 2004, the Regional Science Liaisons' (RSL) fall training workshop was held at the Newport and Corvallis Laboratories of NHEERL's Western Ecology Division (WED). It was co-led by Patti Tyler (RSL, Region 8) and Roseanne Lorenzana (RSL, Region 10) and coordinated closely with Jennifer Orme-Zavaleta, Deputy Division Director/WED. The workshop focused on building partnerships between the RSLs and WED researchers, and discussing RSL programs aimed at integrating ORD science into region, state, and tribal environmental decisions. Several new databases, models, and Web sites were presented that will facilitate RSL and other regional scientists' access to and use of WED-generated data and tools. The RSLs also learned about WED's ongoing research on:

- Coastal and western EMAP programs,
- Habitat alteration research,

- Landscape assessment approaches,
- Wetland and macroinvertebrate research,
- Alternative futures analyses,
- Pesticides, and
- Genetically-modified plants.

During the RSL business sections of the meeting, Megan Grogard led a discussion on the role of the RSLs in the development and implementation of an ORD/State Action Plan. Bobbye Smith (RSL, Region 9) and David Macarus (RSL, Region 5) facilitated a discussion on how the RSLs could assist in the response to one of the recommendations in the Use of Science in the Regions report about expanding technical support to non-waste programs in the regions.

The RSLs, alongside the WED researchers, experienced first hand the science community's reaction when the Agency fortu-

itously announced during the visit the results of the research led by Anne Fairbrother's Risk Characterization Branch showing that genetically-modified, Round Up-ready, bent grass seeds could migrate up to 24 km downwind from the site of use on golf courses.

A highlight of the visit was an all-day field trip to the Smith River watershed by the RSLs to observe ongoing field studies on salmon migrations and the impacts of habitat alteration. In upland streams, WED field teams tagged juvenile coho salmon (PIT tagging) to monitor their emigrations down the river (and hopefully back up river to spawn in 3 years), while further downstream, researchers from other federal agencies were collaborating with WED scientists to conduct habitat restoration projects.

For more information, please contact David Klauder at 202-564-6496 or klauder.david@epa.gov. ■

Product Expo in Region 5 Beamed Coast to Coast and to Canada and China Too!

The October 6, 2004 Region 5 Product Expo in Chicago, IL, was attended by an estimated 160 people, either in person or via Web link (130 registered via the CLU-IN Web site, and about 35 in person) and featured the following four ORD science products that are ready to use or in the final stages of development prior to direct application:

- **Ecological Risk Assessment Endpoints: EPA's New Guidance**—Available now to assist Risk Assessors and Risk Mangers in the appropriate choices of endpoints for protection.
- **Optimal Well Locator (OWL) Software: How to Optimize Monitoring Well Locations**—Available now with guidance.

- **A Rapid Analysis Tool to Aid More Responsive Beach Monitoring**—The Quantitative Polymerase Chain Reaction (QPCR) rapid water analysis for pathogens shows a good correlation with health data, and is ready for use as an early warning tool to assist in beach closing decision-making. Epidemiological studies underway are expected to guide the development of criteria for beach closings by the QPCR method.

- **New Technologies for Mercury Removal from Coal Combustion Flue Gases**—New sorbents for mercury capture from coal combustion gases show promise of being cost effective for mercury removal when state and federal regulations mandate lower emission standards. The new sorbents,

some based upon silica, would have advantages over the much studied activated carbon injection system in both cost and saleability of byproduct fly ash.

For more information, please contact David Macarus at 312-353-5814 or macarus.david@epa.gov or Charles Maurice at 312-886-6635 or maurice.charles@epa.gov. ■

OSP Update Contributing Writers

- Kathleen Graham
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June '04 thru October '04

Welcome to Our New Folks

Cynthia Roberts permanently joined the Program Support Staff Water Team on June 27. Cynthia came to us from the Office of Science and Technology in OW and had been serving on a detail assignment with the Water Team since January 4.

Diane Ham, a SEE employee, joined OSP on August 16, and is providing administrative support to the front office. In addition, she is supporting the Forum on Environmental Measurement (FEM) by providing logistical and tracking support. Diane comes to us with a wealth of experience serving for many years as an assistant to several senior managers in the Office of Management and Budget.

Details/Training Assignments/ Students/Internships

Katie Warwick of OSP's Program Support Staff served on a detail assignment to NCER, ORD, from June 27 through September 30. Katie provided assistance to NCER on a special project on particulate matter.

Brian Gullett served as Acting Chief of OSP's Program Support Staff on a rotational assignment from July 11 through September 30. Brian's position of record is in the Air Pollution Technology Branch of the National Risk Management Research Laboratory in Research Triangle Park, NC.

Susan Glassmeyer joined OSP on August 22. She is serving on a Rotational Assignment with the Program Support Staff Water Team through January 17, 2005. Susan's position of record is in the Microbiological and Chemical Exposure Assessment Research Division of the National Ex-

posure Research Laboratory in Cincinnati, OH.

Megan Grogard was selected to participate in the Council for Excellence in Government (CEG) Fellowship Program for 1 year beginning in October. The CEG program provides the participants with opportunities to work with leaders both in and outside of the Federal Government on critical issues facing the nation. Although the program lasts 1 year, the actual time she is away from the office is about 2 days a month.

Valerie Chan joined OSP's Program Support Staff Water Team on October 3. She was selected from EPA's Intern Program, a 2-year program of rotational assignments and training. She will perform a variety of assignments designed with the objective of: (1) broadening exposure to EPA programs; (2) improving individual knowledge, skills, and abilities; and (3) achieving a higher level of capability to assume technical or administrative assignments.

Stephen Watkins joined OSP's Program Support Staff on October 18. He was selected from the Federal Career Intern Program and will perform a variety of program support assignments.

Peter Fargo re-joined OSP on October 17 serving under the Student Temporary Employment Program (STEP) through May 15, 2005. You may recall that Peter worked with us through the STEP program last April. He is assisting OSP on the nanotechnology issue.

Chau Vu joined OSP on October 31. She is serving on a rotational assignment with the Program Support Staff Waste Team through February 20, 2005. Chau's position of record is in the Office of Site Remediation and Restoration in Region 1, Boston, MA.

Intra-OSP Staff Moves

Anita Street has transferred from the Cross Program Staff to the Research Coordination Staff to work on Agency-wide science and risk-based environmental policy issues relating to sustainability, environmental futures, multimedia research, and other high-priority programs.

Laurel Schultz has transferred from the Research Coordination Staff to the Cross Program Staff to serve as OSP's FTTA Manager working on technology transfer initiatives in the FTTA program; and assuring that the Agency and its laboratories assist universities, state and local entities, and the private sector in increasing the national and international technology base by moving new knowledge from the research laboratory into the development of new products and processes. Laurel had been serving as the Acting FTTA Manager since January.

Kathleen Graham has transferred from the Research Coordination Staff to the Cross Program Staff to assist with technology transfer initiatives in the FTTA program; and to coordinate Agency and laboratory assistance to universities, state and local entities, and the private sector to move new knowledge from the research laboratory into the development of new products and processes.

Megan Grogard has transferred from the Immediate Office to the Cross Program Staff's Regional Team to work with David Klauer to establish a state outreach program through the regions.

Rochelle Perry has transferred from the Immediate Office to the Cross Program Staff to join the team working on the technology transfer initiatives in the FTTA program.

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Staff

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Lawrence Martin has been converted from a 1-year temporary position to a permanent position as the Air Research Coordinator in the Research Coordination Staff.

Mojgan (Maggie) Javdan has been converted from a 1-year temporary position to a permanent position as the Water Research Coordinator in the Research Coordination Staff.

Congratulations to Award Recipients!

Congratulations to Megan Grogard who received an Office of Environmental Information (OEI) "Shirt-Off-Your-Back" Award for her work in leading OEI's participation in the Science Forum.

Congratulations to both **Robin Clarke** and **Maggie Javdan** who received an OSP Customer Service Peer Recognition Award for delivering quality customer service.

OSP All-Hands Social

At the September 23, 2004, OSP All-Hands Social, a delicious breakfast (breakfest!!) hosted by the Program Support staff, awards/kudos were handed out to many staff members in recognition of their work in a diverse range of activities relating to support for development of program office regulations, research coordination and planning, and OSP facility consolidation.

ORD Human Resources Partnership Council

Mary Ellen Radzikowski is OSP's principal serving on the ORD Human Resources Partnership Council. The purpose of the council is to provide a forum for ORD senior managers and the Unions to work together to address human resource issues in a collaborative manner. The Council is represented by all of the ORD Management Deputies and the Presidents of all of the Unions representing ORD employees. Mimi Dannel will serve as Mary Ellen's alternate. A Web site will be launched within the next month that will include detailed information about this council, including the charter, members, and activities undertaken by this group. ■

Upcoming EPA-Tribal Science Council Meetings

TSC Business Meetings

The National EPA-Tribal Science Council (TSC) will hold its next in-person business meeting on November 8-10, 2004, at the Fond du Lac Reservation outside Duluth, MN. Agenda items for the meeting include:

- Reassessing the tribal science priorities originally identified by the TSC tribal representatives in September 2002,
- Developing a work plan of TSC activities for the next year,
- Discussing the upcoming tribal risk assessment workshop, and
- Discussing contract support for the TSC after September 2005.

Risk Assessment Workshop

On January 25-27, 2005, the National EPA-TSC will sponsor "Addressing Tribal Traditional Lifeways in EPA's Risk Assessment Policies and Procedures" at the Pyramid Lake Paiute Tribe in Reno, NV. This workshop builds on previous activities that focused on EPA's risk assessment process and the Health and Well Being process. Its goal is to develop recommendations to EPA for establishing a tribal policy on how Tribal Traditional Lifeways should be addressed in EPA's risk assessments.

The TSC is working with tribal representatives from the EPA-sponsored tribal workgroups (i.e., Tribal Pesticide Program Council, Tribal Association of Solid Waste and Emergency Response) to develop an

agenda that will best meet the needs of tribes on risk assessment related issues. Specific objectives of the workshop are to:

- Examine the risk assessment process to identify where Tribal Traditional Lifeways can be incorporated into EPA's existing approach;
- Identify data, products, and tools that can modify or enhance EPA's risk assessment policies or procedures to incorporate Tribal Traditional Lifeways; and
- Develop overarching principals for accounting for Tribal Traditional Lifeways in EPA's risk assessment policies and practices.

For more information, please contact Claudia Walters at 202-564-6762 or walters.claudia@epa.gov ■



Seminar Series

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July 21, 2004—Modeling the Risks to Wildlife Populations of Multiple Interacting Stressors

Presenter: Dr. Nathan H. Schumaker, NHEERL, Western Ecology Division, ORD

To augment its wildlife risk assessment work, the Environmental Fate and Effects Division (EFED) of the Office of Pesticide Programs (OPP) is working with NHEERL to develop the research tools and procedures necessary to conduct analyses of the population-level risks of human activities, principally pesticide applications. This seminar examined the development of the ORD-EFED wildlife simulator/wildlife population model capable of placing impacts from pesticide application in the context of other real-world stresses such as habitat alteration and environmental variability. Intermediate results as well as research activities planned for the next few years were described.

For more information, please view the slide presentation that is available at <http://intranet.ord.epa.gov:9876/development/RCT/PestToxRCT.nsf/1d97341def1e57d185256a5c006ee712/74ce3c121f68c96585256ed000690fa8?OpenDocument>.

September 15, 2004—DSSTox Public Toxicity Database Network: Progress Report and New Initiatives to Expand Chemo-informatics Capabilities

Presenter: Dr. Ann M. Richard, NHEERL, Environmental Carcinogenesis Division, ORD

Structure-activity relationships (SAR) are an indispensable computational tool in the arsenal of preliminary estimation and testing prioritization techniques for assessing potential toxicity. SAR capabilities depend, however, upon the ability to broadly survey relevant toxicity data for chemical analogs, and the availability of sufficient

quantity and quality of data relevant to the chemicals and endpoints of concern. The recently launched Distributed Structure-Searchable Toxicity (DSSTox) Web site at <http://www.epa.gov/nheerl/dsstox/> promotes use of standards for chemical structure-inclusive toxicity data files and documentation files, and provides a forum for making such files freely available for use in SAR model development.

The DSSTox database construct and standard chemical fields are suitable for annotating a wide diversity of toxicology data content of existing legacy data and emerging “omics” databases, wherever a single chemical exposure was part of the experimental design for assessing effects associated with toxicity. DSSTox databases are tailored and specifically designed for use in chemical relational databases, encouraging broader exploration across diverse toxicity data domains from a chemical perspective than has been previously possible. Goals of the DSSTox project are to: (1) expand database offerings into a wider range of toxicology study areas; (2) coordinate development and adoption of standardized toxicity data fields that will expand structure-activity exploration capabilities across wide-ranging areas of toxicology; (3) coordinate adoption of unique, content-rich XML chemical structure identifiers; and (4) encourage and facilitate expanded chemo-bioinformatics capabilities in toxicogenomics. In collaboration with the NIEHS/National Center for Toxicogenomics and the Chemical Effects in Biological System Knowledge Base (CEBS), DSSTox standard chemical fields will be incorporated into the annotation of toxicogenomics datasets resulting from chemical exposure.

For more information, please view the slide presentation at <http://intranet.ord.epa.gov:9876/development/RCT/PestToxRCT.nsf/1d97341def1e57d185256a5>

Nanotechnology

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The workshop ended with a special presentation by Dr. Ray Oliver of The Royal Society on the Society’s July 2004 report, “Nanoscience and Nanotechnologies: Opportunities and Uncertainties.” For more information, the report can be found at www.royalsoc.ac.uk. Additionally, Ann Dowling of The Royal Society presented the report findings on September 24th at the Woodrow Wilson International Center for Scholars.

The proceedings of the workshop are expected to be online soon. In the meantime, visit NCER’s Web site at <http://www.epa.gov/ncer> for more information about ongoing research as well as proceedings from the first workshop.

For more information on the nanotechnology workshop, please contact Anita Street at 202-564-3626 or street.anita@epa.gov.

Workshop

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- Developing computational models and statistical approaches to link responses among species; and
- Extension of molecular and computational information to risk assessment (both ecological and human health) and regulatory decision-making.

All relevant discussions and conclusions are expected to be published in a book through SETAC Press by May 2005.

For more information on this workshop, please contact Anita Street at 202-564-3626 or street.anita@epa.gov.

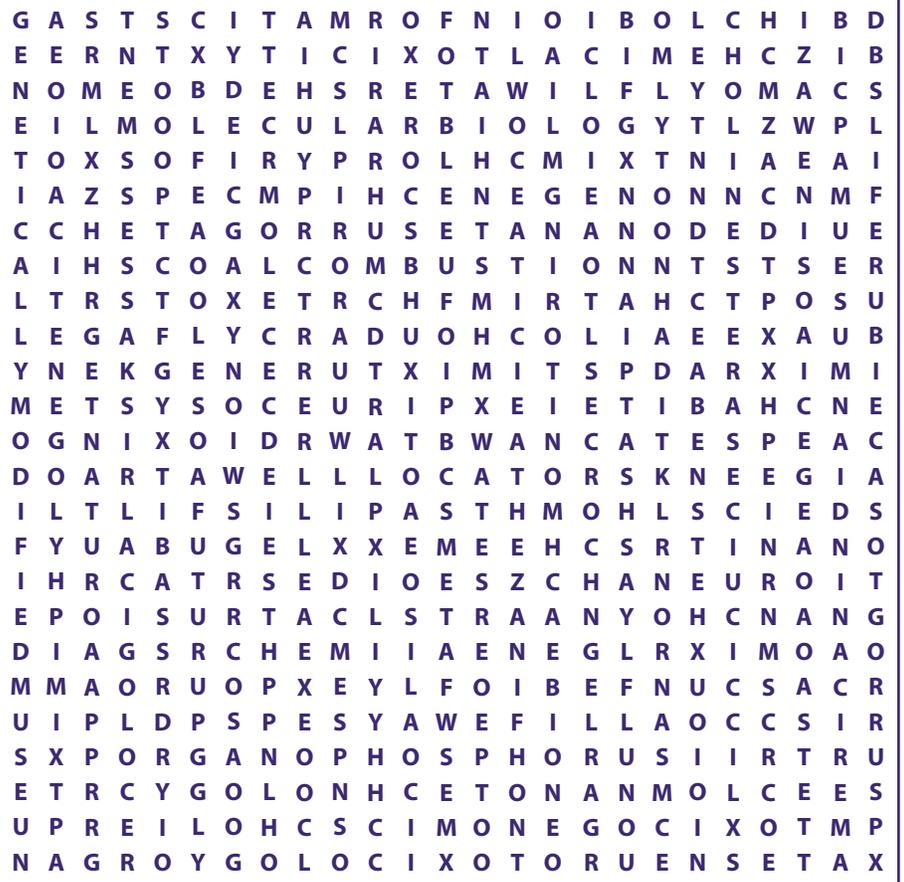
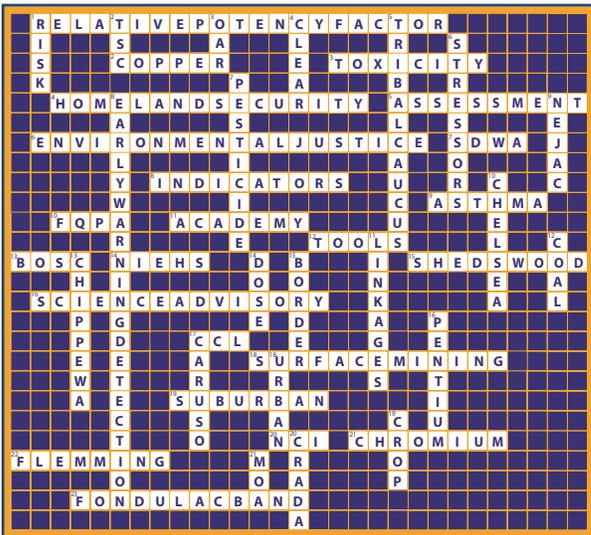
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For more information about the Seminar Series, please contact Greg Susanke at 202-564-9945 or susanke.greg@epa.gov.



Word Find

Solution to June OSP Update Crossword



- American Indian Museum
- Beach Monitoring
- Bioinformatics
- Chemical Toxicity
- Chlorpyrifos
- Cholinesterase
- Coal Combustion
- CRADA
- Diazinon
- Dioxin
- Ecological Risk Assessment
- Ecosystem
- EMAP
- Exposure
- Fate
- Fly Ash
- Futures
- Gene Chip
- Genetically
- Modified
- Habitat
- Landscape
- Lifeways
- Mercury
- Mixture
- Molecular Biology
- Nanotechnology
- Neurotoxicology

- Omics
- Organophosphorus
- Phylogenetic
- Product Expo
- Risk
- SETAC
- Species
- Surrogate
- Toxicogenomics
- Watershed
- Well Locator
- Wetland
- Wildlife

International Trip Report

On September 2-10, 2004, Dr. Brian Gullett met with Dr. Robert Gemmill (UK Environment Agency) and Mr. Patrick Dyke (PD Consulting, UK) at the Cauldon Cement Works, the site of a UK Environment Agency field demonstration of two commercial dioxin continuous samplers, relatively new instruments that have no current installations in the United States. Dr. Gullett discussed the preliminary results of the field trial with Dr. Gemmill to understand how the samplers, which are likely to be included within an array

of instruments to be tested at the U.S. EPA under an Environmental Technology Verification (ETV) program demonstration, might be tested and applied in the United States. Dr. Gullett and Mr. Dyke also met with Dr. Mike Sutton of Lubrizol to discuss their upcoming program to test the effects of chlorinated additives in motor oils on the potential for emissions of dioxins.

In Berlin, Dr. Gullett attended the 24th International Symposium on Haloge-

nated Environmental Organic Pollutants and Persistent Organic Pollutants (POPs) (aka Dioxin 2004). More than 1000 attendees from more than 30 countries attended sessions on Analysis, Transport, Formation, Control, Brominated Organics, Fluorinated Compounds, and others. Dr. Gullett presented papers at two sessions and chaired a third.

For more information, please contact Brian Gullett at 919-541-1534 or gullett.brian@epa.gov.